

- |                                  |                           |
|----------------------------------|---------------------------|
| 1. <i>Lens board frame</i>       | 3. <i>Yarn</i>            |
| 2. <i>Front frame</i>            | 6. <i>Body</i>            |
| 3. <i>Bellows sack (8P8-635)</i> | 7. <i>Bellows</i>         |
| 4. <i>Tacking strip</i>          | 8. <i>Screw (8P8-415)</i> |

Figure 6. Bellows (8P8-45)

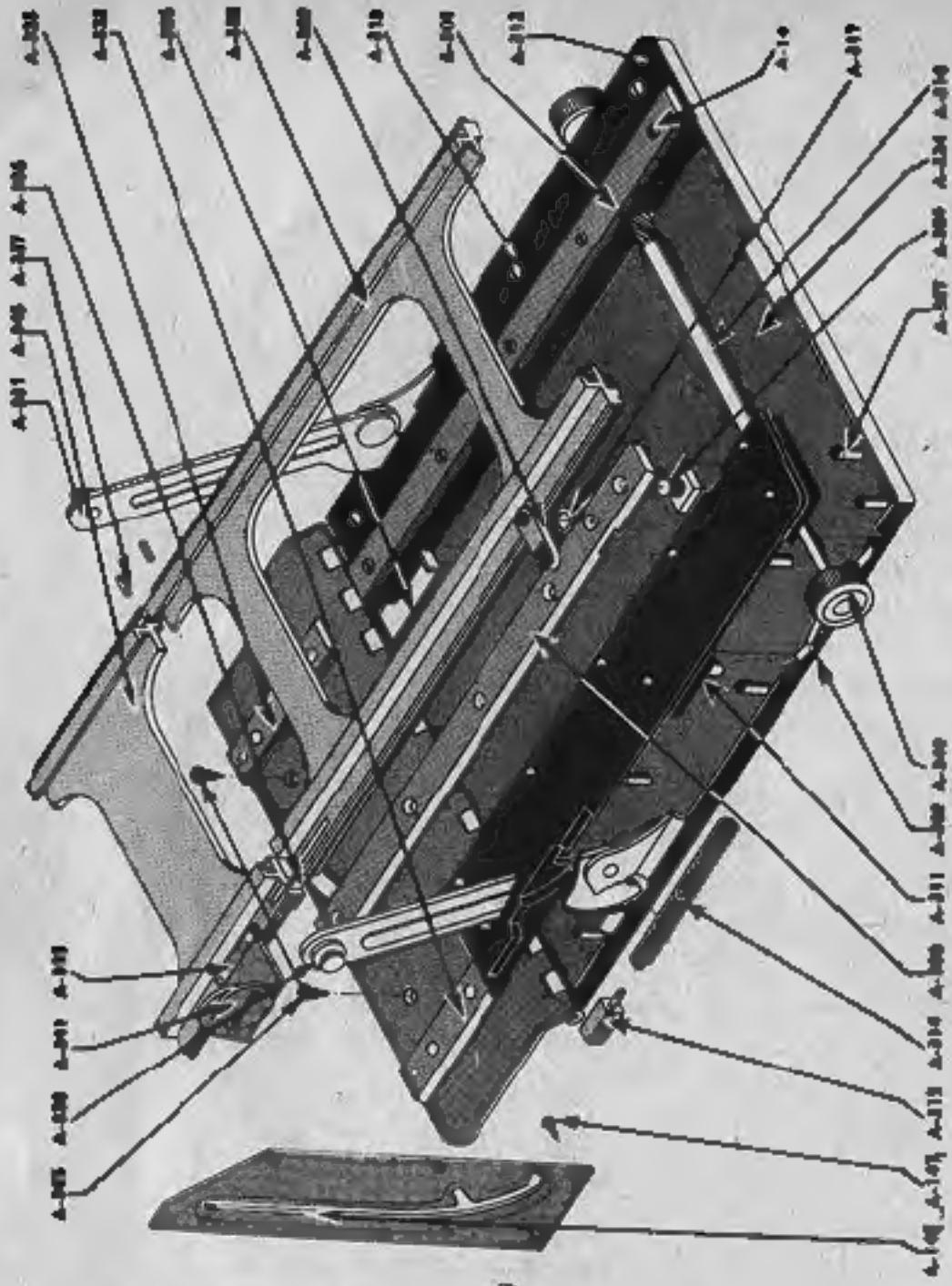
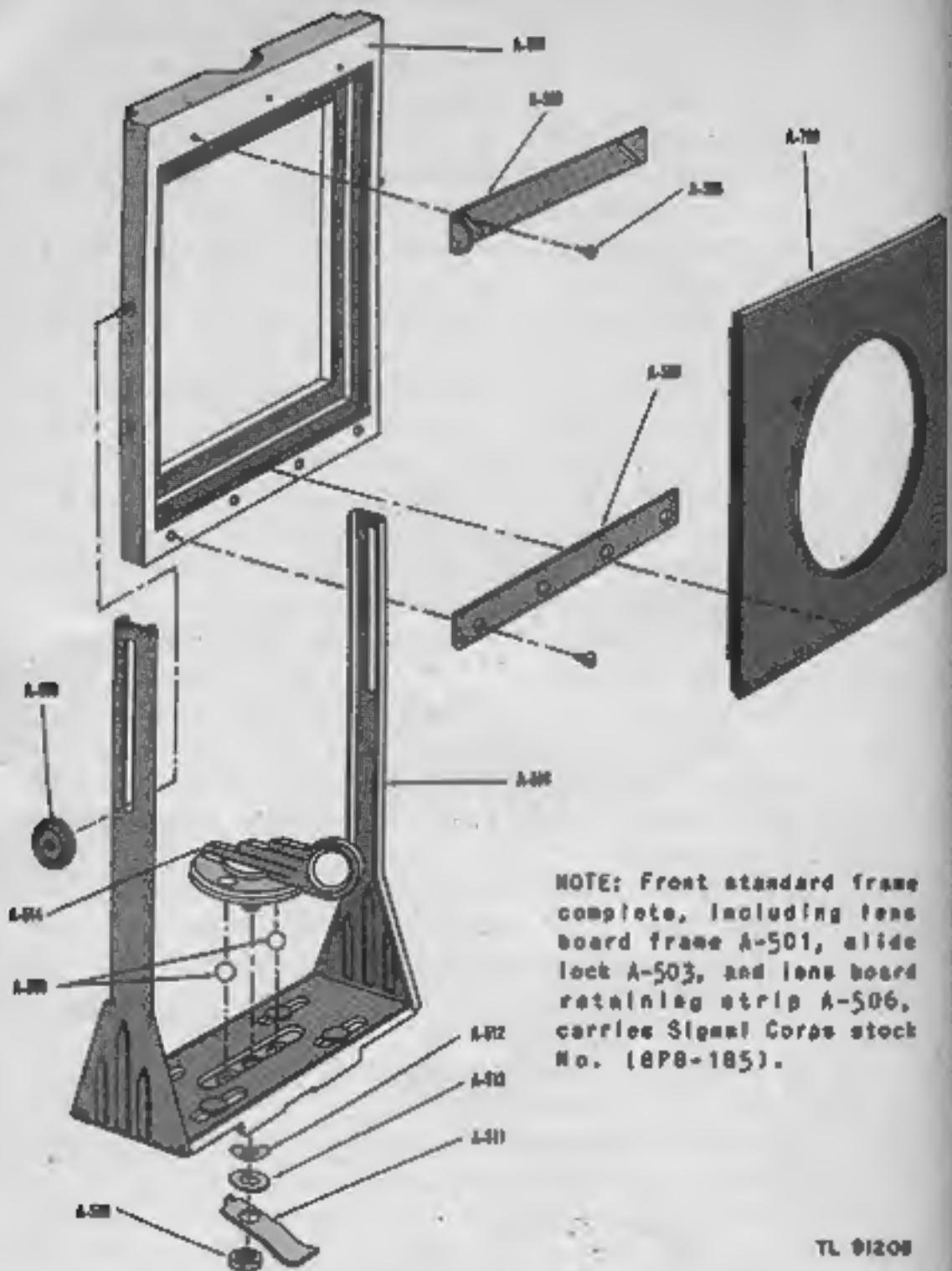


Figure 36. Bed (8PB-40) and yoke (8PB-445) mechanism

TL 88210



A-501. Lens board frame  
 A-503. Slide lock (8P8-268)  
 A-505. Slide lock screw  
 A-506. Retaining strip  
 A-509. Lock balls  
 A-510. Locknut  
 A-511. Spring catch

A-512. Front standard spring washer  
 A-513. Front standard flat washer  
 A-514. Front lock lever  
 A-518. Front standard assembly  
 (8P8-605)  
 A-536. Rising front locking nut  
 A-708. Lens board (8P8-6231)

Figure 52. Camera front, exploded view

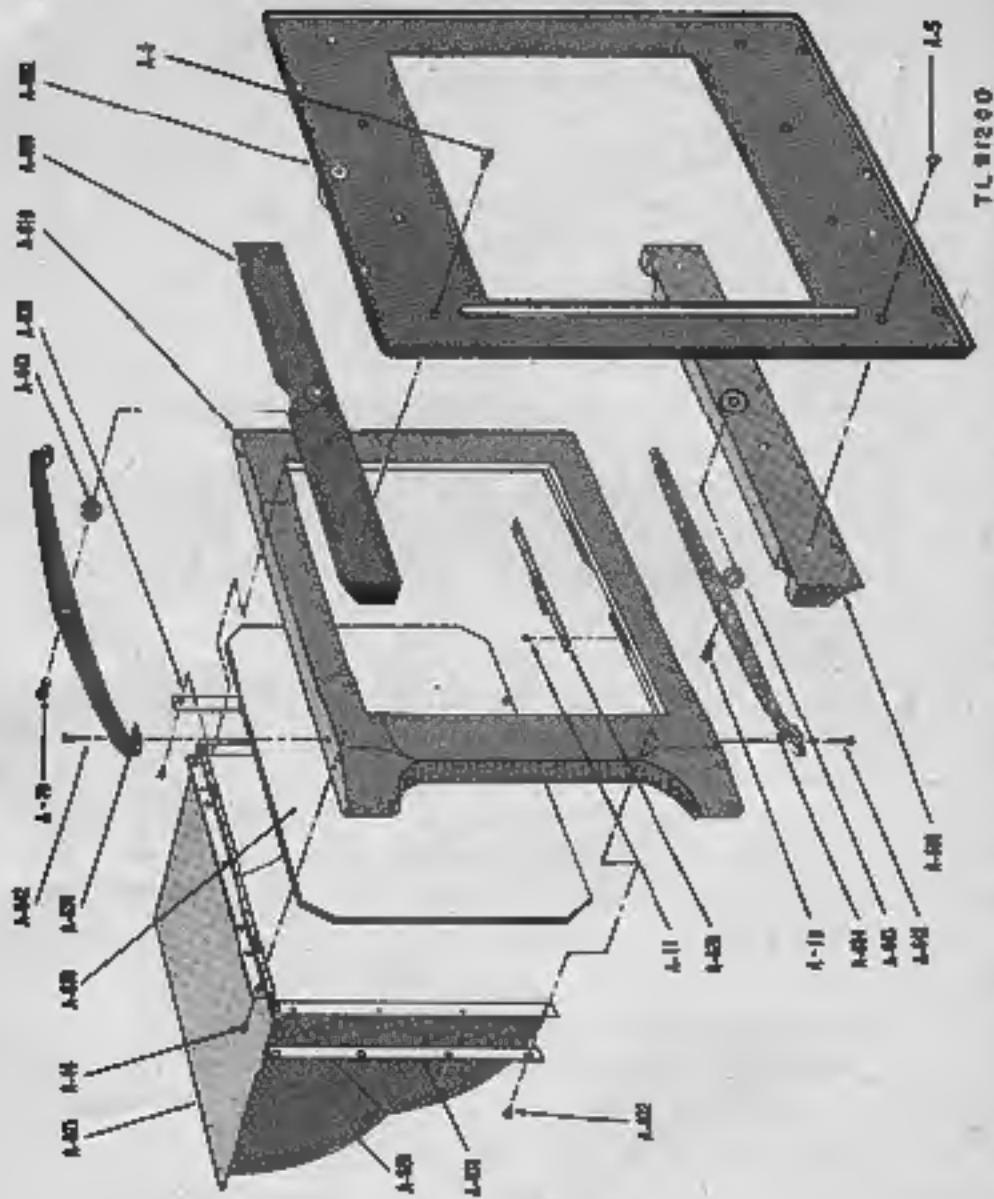
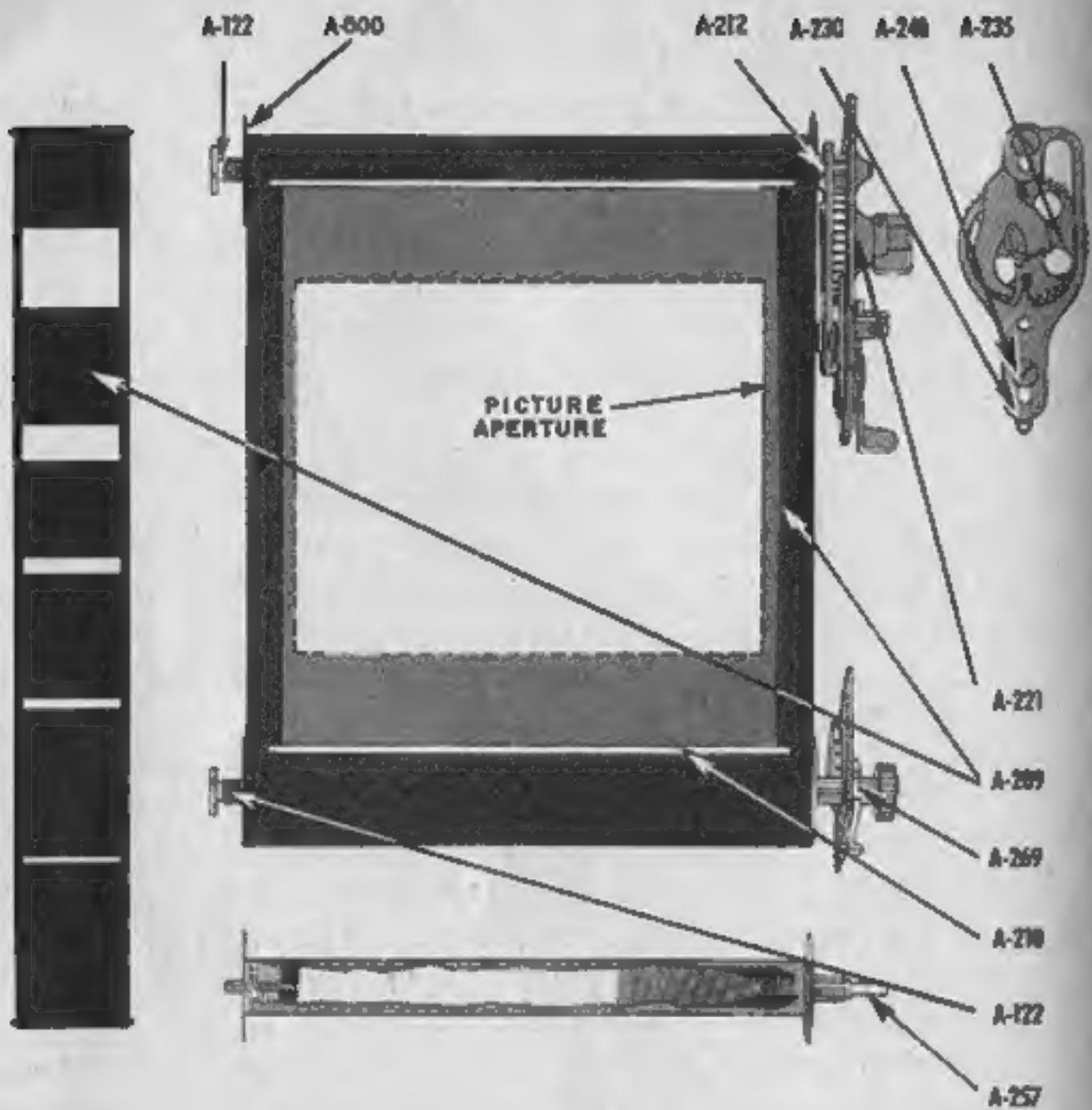


Figure 53. Camera back (8PP-13), exploded view

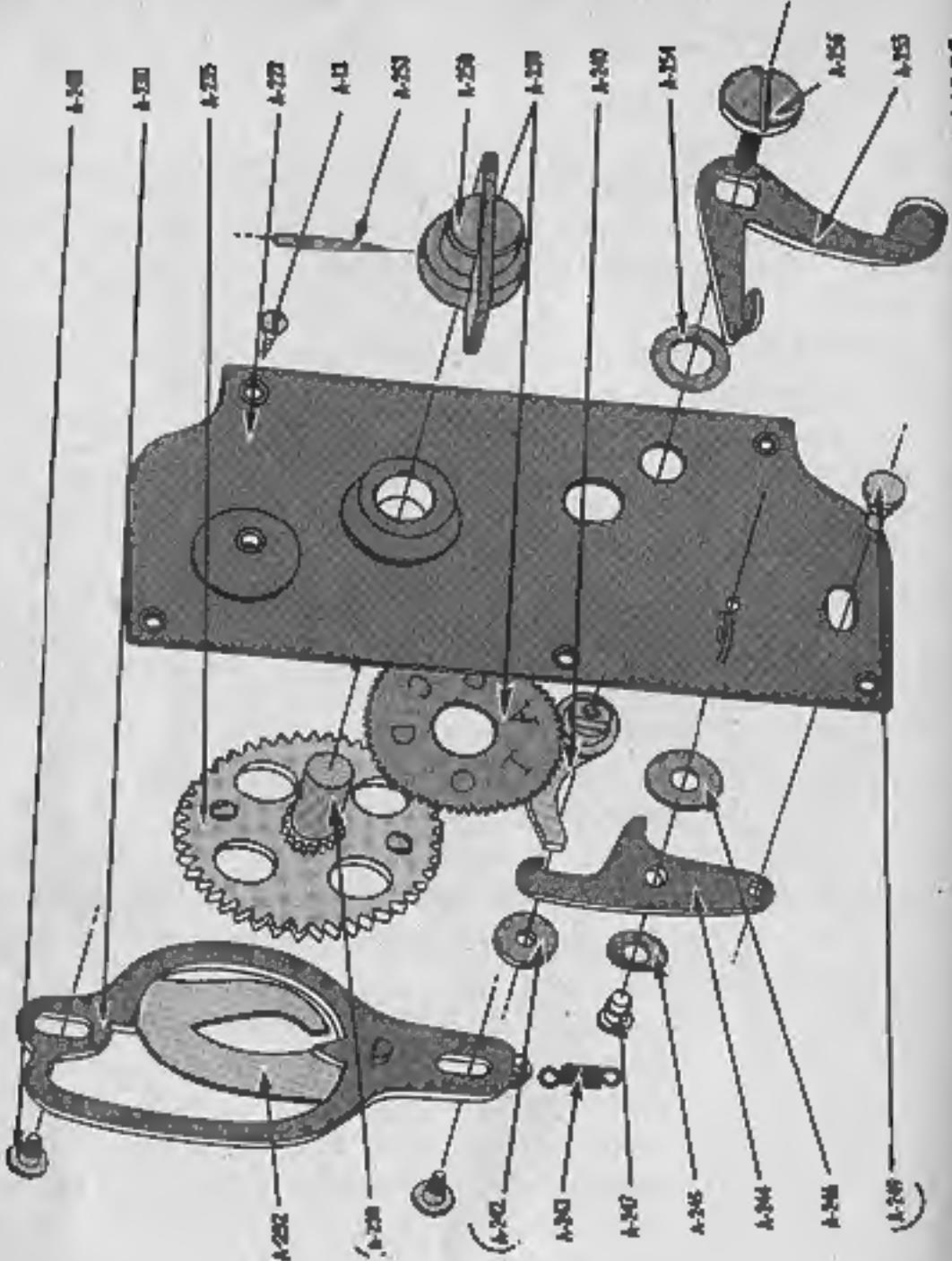


TL92921

*A-122. Curtain roller bearing  
 A-209. Shutter curtain  
 A-210. Curtain edging slit  
 A-212. Top gear roller assembly  
 A-221. Shutter plate  
 A-000. Upper shutter roller*

*A-230. Escapement  
 A-235. Master gear  
 A-248. Screw  
 A-257. Bottom tension roller assembly  
 A-269. Tension plate*

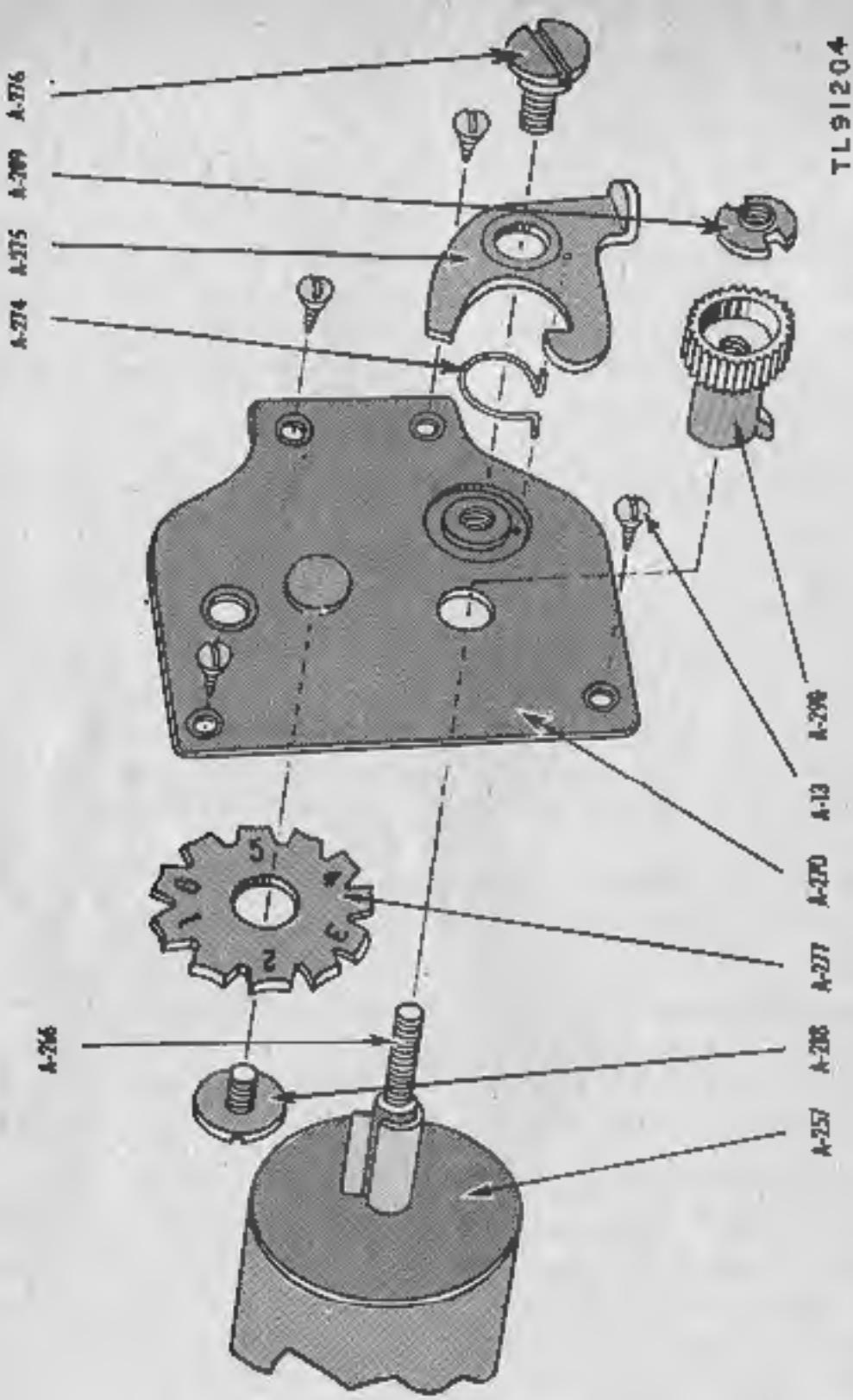
Figure 54. Focal plane shutter mechanism (8PB-125)



- A-13. Screw (8P8-500)  
 A-222. Shatter plate (8P8-333)  
 A-230. Escapement (8P8-140)  
 A-232. Catching brake  
 A-235. Master gear  
 A-238. Master gear stem  
 A-239. Indicator gear  
 A-240. Escapement lever  
 A-242. Locknut  
 A-243. Spring (8P8-375)  
 A-244. Shutter latch lock  
 A-245. Escapement spring washer  
 A-246. Lockwasher  
 A-247. Shutter lock latch nut  
 A-248. Screw  
 A-249. Shutter lock latch  
 A-250. Shutter winding key (8P8-223)  
 A-253. Taper pin (8P8-300)  
 A-254. Spacer washer (8P8-665)  
 A-255. Shutter-release lever (8P8-255)  
 A-256. Release lever screw

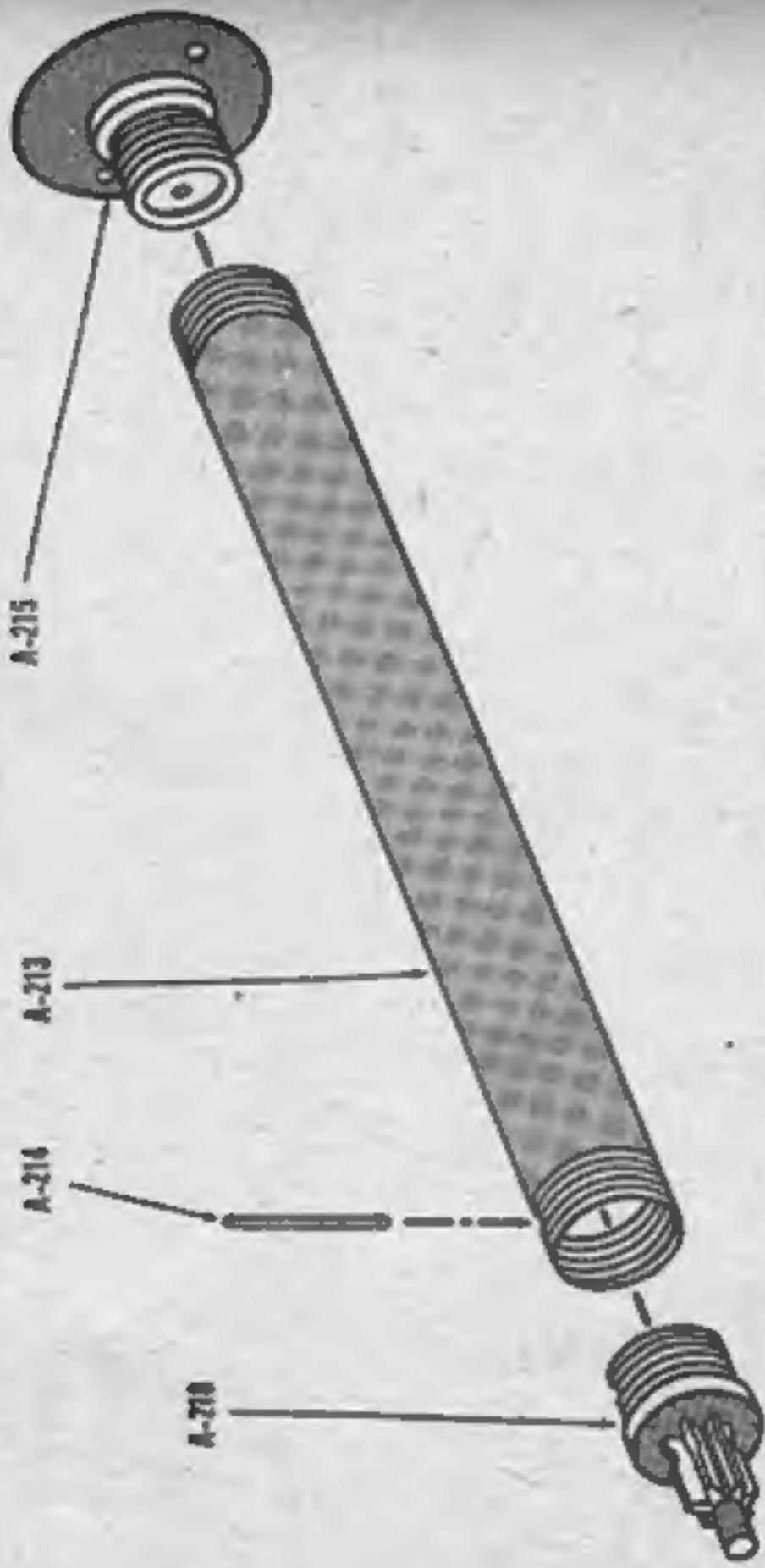
Figure 55. Combination lock mechanism

T191203



A-13. Screw  
 A-257. Bottom tension roller  
 assembly  
 A-266. Roller rod  
 A-270. Plate (8P8-340)  
 A-274. Dog spring (8P8-600)  
 A-275. Release dog  
 A-276. Screw (8P8-490)  
 A-277. Indicator gear  
 A-288. Screw (8P8-493)  
 A-289. Locknut (8P8-285)  
 A-290. Snail (8P8-555)

Figure 56. Tension-setting mechanism

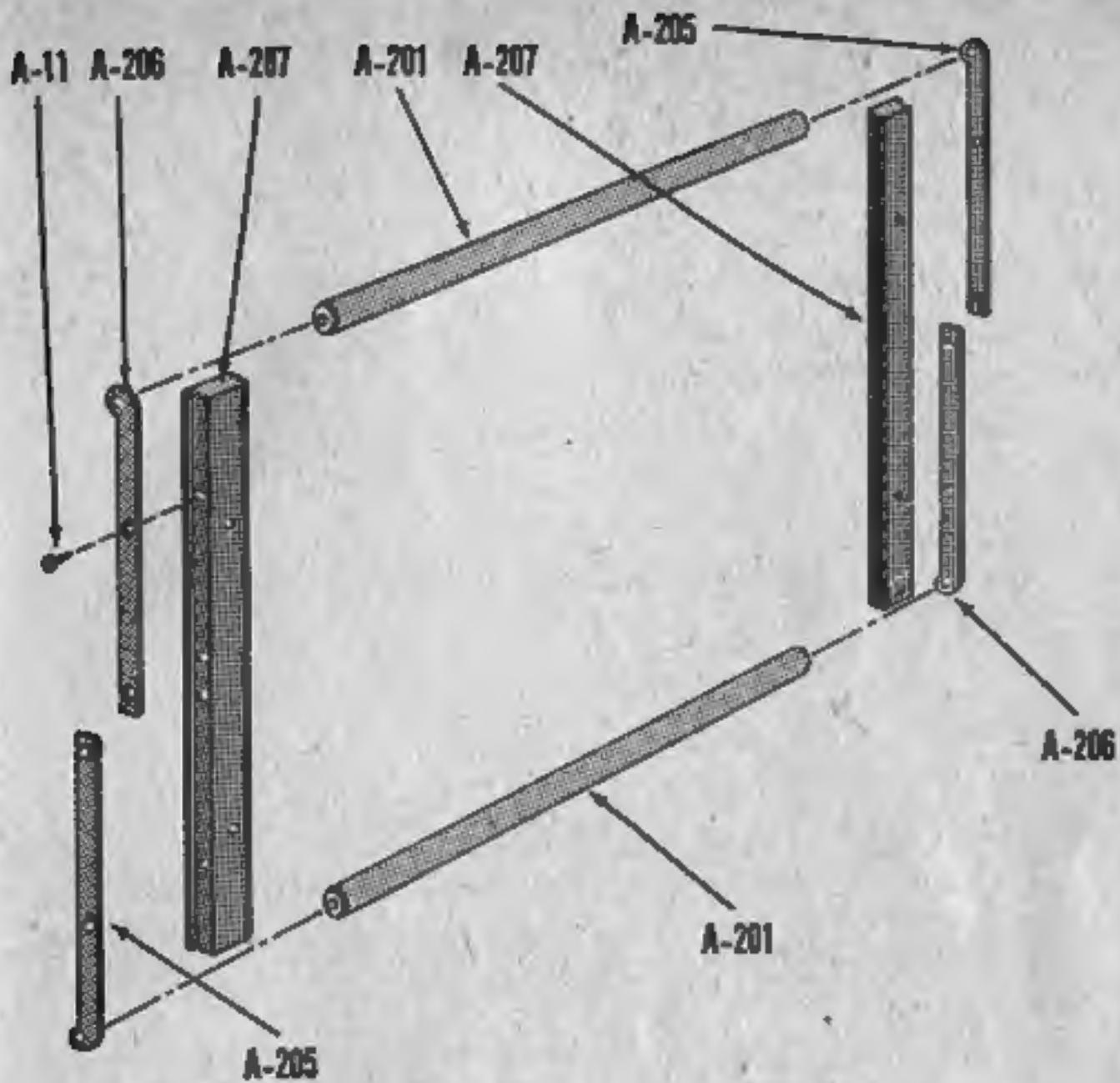


TL 91206

A-215. Bushing assembly  
A-218. Pinion assembly

A-213. Tube  
A-214. Pin

Figure 58. Upper shutter roller mechanism (SP8-190)



**TL 91207**

*A-11. Strip screw*

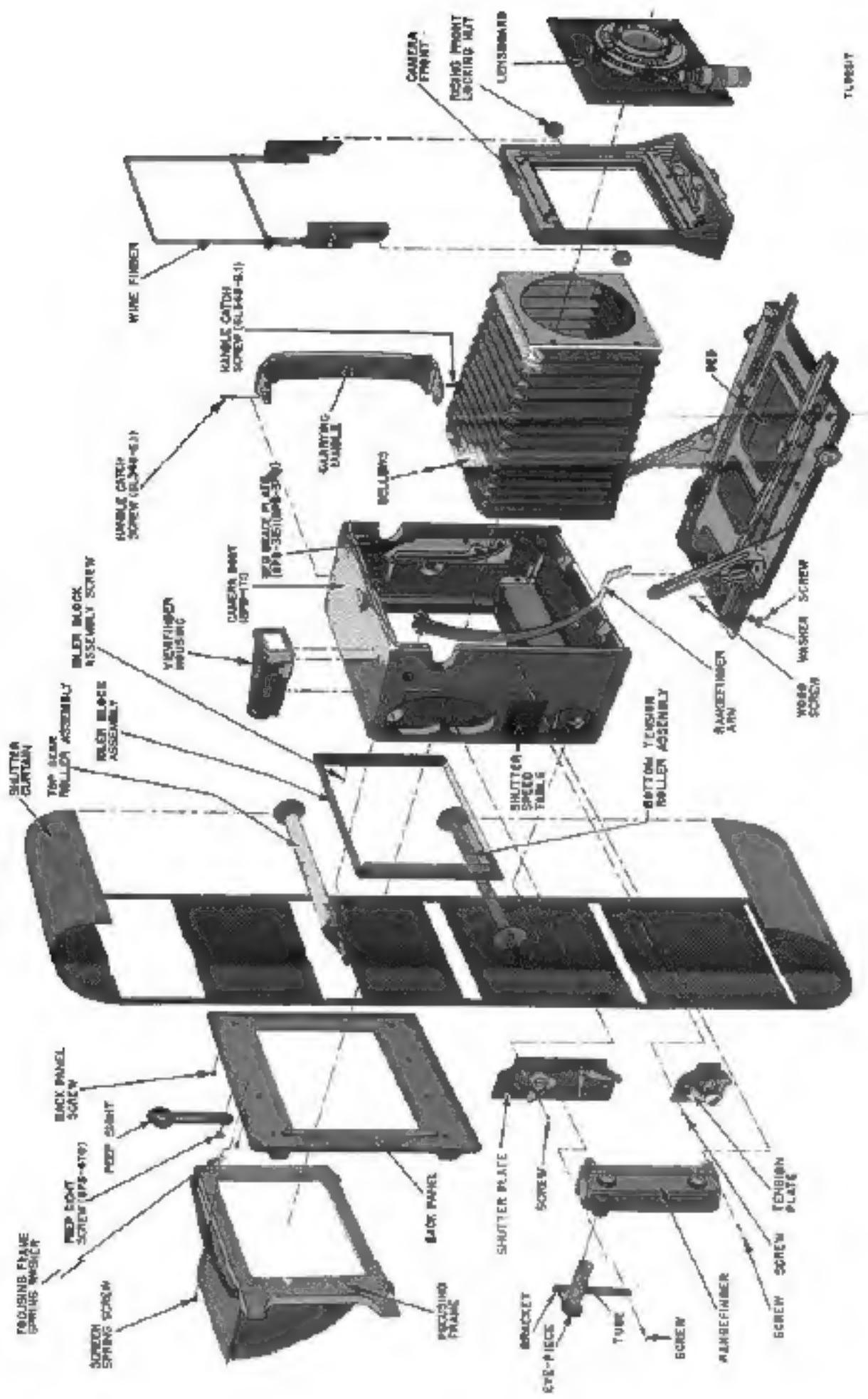
*A-201. Idler*

*A-205. Top right and lower left idler strips*

*A-206. Top left and lower right idler strips*

*A-207. Idler block*

*Figure 39. Idler block assembly (8P8-220)*



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# APPENDIX

## SECTION XI

### MAINTENANCE PARTS LISTS

#### B4. MAINTENANCE PARTS LIST FOR CAMERA EQUIPMENT PH-104.

Ref symbol	Signal Corps stock No.	Name of part and description	Ques per unit	Running spares	Orgn stock	3d ech	#h ech	5h ech	Depot stock
Fig. 26	8A10A	ADAPTER: slim pack, metal, 4" x 3", complete with slide graphic, all metal or equal. (See list for Adapter PH-110-A, paragraph 93.)	1						
Fig. 2	8A3273-X04	CABLE RELEASE: Folmer Graflex; PH-30E; 23 $\frac{1}{2}$ " lg; fits supermatic #2 shutter.	1				**	**	*
Fig. 3	8A347E	CAMERA: Folmer Graflex; PH-47E; 4" x 5" spec'd graphic; w/127mm Ektar lens.							
Fig. 2	8A523D	CASE: camera carrying Folmer Graflex; PH-83-D; compartment type; size about 19 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ "; fibre material. (See list for Case PH-83-D, paragraph 93.)							
Fig. 2	8A851A	CLOTH: focusing, EKCo; 40" x 60"; bound at all edges.	1				**	**	*
Fig. 2	8PH-110 F	CORD: extension: Folmer Graflex catalog #150; 15 ft lg w/ molded phonos size female right angle connectors at both ends; w/ standard female receptacle.	1				**	**	*
Fig. 2	8A1099/X1+2	FILTER: Wratten X-1, 13 $\frac{1}{2}$ " diam, in B glass (Kodak Series VI or equal).	1				**	**	*

Fig. 2	8A1099/2-2	FILTER: Wratten K-2, 13 $\frac{1}{2}$ " diam, in B glass (Kodak Series VI or equal).	1				**	**	*
Fig. 2	8A1099/G-2	FILTER: EKCo; Wratten G; Kodak Series VI; BKC or equal.	1				**	**	*
Fig. 2	8A1100-380	FILTER: PH-380 (Wratten Aero 2, Eastman Kodak Co., 4" square, in B glass; used to vary social relationship in the photography of colored objects; w/w but not part of PH-120A and PH-195A).	1				**	**	*
Fig. 17	8A1100 *	HOLDER: cut film. Folmer Graflex; PH-81; 4" x 5"; wooden construction; w/ opaque dark side; complete w/ separate graphic type.	6						
Fig. 18	8A2576A	LENS HOOD: and filter holder; EKCo Series VI; PH-106A; includes 13 $\frac{1}{2}$ " Kodak adapter ring and Kodak lens hood.	1				**	**	*
Fig. 19	8P8-538	LIGHTING UNIT: side.	1				**	**	*
Fig. 24	8A3698-3	SYNCHRONIZER: flash; Graflex #37 (metal battery case w/ 7" adjustable reflector for standard base bulbs; used with supermatic shutter on Camera PH-47E).							
Fig. 14	8A4121	TRIPOD PH-121: (overall dimens 4" diam by 16 $\frac{1}{2}$ " lg; Cewe #1, or equal).	1						

\*Indicates stock available.

\*\*Indicates that parts may be requisitioned as needed for depot stocks.

## 85. MAINTENANCE PARTS LIST FOR CAMERA PH-47-E.

Ref symbol	Signal Corps stock No.	Name of part and description	Quan per min	Bon-ning spares	Orgn stock	3d ech	4th ech	5th ech	Depot stock
Fig. 36 (A-312)	SPB-25	BEARING: roller.	2			++	++	++	*
Fig. 36	SPB-40	BED: complete.	1	*		++	++	++	*
Fig. 36	SPB-45	HELLOWS: complete, interior cloth, exterior black leather.	1			++	++	++	*
Fig. 36 (A-312)	SPB-50	BLOCK: bed, left, bakelite, black, moulded.	1	*		++	++	++	*
Fig. 36 (A-312)	SPB-55A	BLOCK: bed, right, bakelite, black, moulded.	1	*		++	++	++	*
Fig. 36 (A-312)	SPB-60	BRACE: bed, left.	1			++	++	++	*
Fig. 36 (A-312)	SPB-6A	BRACE: bed, right.	1			++	++	++	*
Fig. 36 (A-346)	SPB-75	CATCH: focusing panel.	1			++	++	++	*
Fig. 9 (16)	SPB-125	CURTAIN: assembly, focal plane shutter, with struts.	1			++	++	++	*
Fig. 36 (A-275)	SPB-490	DOG: tension, brass; used as stop for tension sand.	1			++	++	++	*
Fig. 35 (A-230)	SPB-140	ESCAPMENT: shutter.	1			++	++	++	*
Fig. 35 (A-230)	SPB-155	FEET: rubber, for bottom of camera case.	4			++	++	++	*
Fig. 9 (5)	SPB-165	FINDER ASSEMBLY: wire (for swinging peep sight).	1	*		++	++	++	*
Fig. 9	SPB-175	FRAME: complete, focusing; with strip, catch and ground glass.	1			++	++	++	*
Fig. 51	SPB-52	FRAME: complete, front standard, with slide lock and lens board screw.	1			++	++	++	*

Fig. 24	SA1698.3	FLASHGUN: and Synchronizer Geoflex #37. (See list for former Geoflex Flashgun, paragraph 91.)	1						
Fig. 36 (A-322)	SPB-210	GUIDE: bell yoke, left.	1			++	++	++	*
Fig. 36 (A-322)	SPB-205	GUIDE: bell yoke, right.	1			++	++	++	*
Fig. 3	SPB-210	HANDLE: carrying, leather; with ring and pad.	1			++	++	++	*
Fig. 31 (6)	SPB-215	HOUSING: tubular viewfinder, bakelite, black, moulded.	1	*		++	++	++	*
Fig. 39	SPB-220	IDLER ASSEMBLY: with idler pin.	2			++	++	++	*
Fig. 55 (A-250)	SPB-225	KEY: shutter winding.	1	*		++	++	++	*
Fig. 35 (A-255)	SPB-255	LEVER: shutter release.	1	*		++	++	++	*
Fig. 3 (6)	SPB-260	LEVER: yoke lock.	1			++	++	++	*
Fig. 3	SPB-265	LOCK: lensboard slide, for locking lensboard in place; SAE #100CR steel, .040 inch thick with two diagonal slots 3/16" long x 9/16" w length.	1			++	++	++	*
Fig. 11 (7)	SPB-270	MASK: viewfinder, removable.	1			++	++	++	*
Fig. 3	SPB-280	NUT: rising front screw, for raising front frame.	2	*		++	++	++	*
Fig. 35 (A-289)	SPB-285	NUT: tension.	2	*		++	++	++	*
Fig. 35 (A-255)	SPB-300	PIN: taper; winding key.	1	*		++	++	++	*
Fig. 36	SPB-295	PINION ASSEMBLY: focusing, complete with knobs.	1			++	++	++	*

\*Indicates stock available.

\*\*Indicates that parts may be requisitioned as needed from depot stocks.

## 85. MAINTENANCE PARTS LIST FOR CAMERA PH-47-E (CONT'D).

Ref symbol	Signal Corps stock No.	Name of part and description	Quan per unit	Re- serving spares	Orga stock	3d ccb	4th ccb	5th ccb	Depot stock
Fig. 23	8P8-310	PLATE: aperture.	1			++	++	+	
Fig. 68	8P8-315	PLATE: brace, left side.	1			++	++	+	
Fig. 68	8P8-315A	PLATE: brace, right side.	1			++	++	+	
	8P8-320	PLATE: handle.	1			++	++	+	
Fig. 55 (A-222)	8P8-335	PLATE: shutter, complete.	1			++	++	+	
Fig. 56	8P8-340	PLATE: tension, complete.	1			++	++	+	
Fig. 65	8P8-345	RANGEFINDER: Hugo Meyer #4C. (See list for Hugo Meyer rangefinder (Model 4C), paragraph 90.)	1						
Fig. 57	8P8-360	ROLLER ASSEMBLY: tension.	1			++	++	+	
Fig. 58	8P8-390	ROLLER ASSEMBLY: upper shutter.	1			++	++	+	
Fig. 69	8P8-363	SCREW: back frame.	5			++	++	+	
Fig. 68	8P8-370	SCREW: back spring.	2			++	++	+	
	8P8-375	SCREW: back to case.	3			++	++	+	
	8P8-380	SCREW: bed catch, handle catch and spring.	2			++	++	+	
	8P8-400	SCREW: focusing frame catch, idler block strip.	4			++	++	+	
	8P8-410	SCREW: foot.	4			++	++	+	
Fig. 6 (8)	8P8-415	SCREW: front bellows.	4			++	++	+	
	8P8-435	SCREW: handle lug or side plate.	2			++	++	+	
	8P8-440	SCREW: hinge, focusing frame.	4			++	++	+	
	8P8-445	SCREW: idler block.	4			++	++	+	
	8P8-450	SCREW: lensboard slide lock 1-56 x $\frac{1}{16}$ inch F.H.-T.M.	2			++	++	+	
	8P8-455	SCREW: lensboard retaining strip $\frac{1}{16}$ inch $\times$ $\frac{1}{2}$ O.H. Parker Kalon Type Z.	2			++	++	+	

Fig. 11	8P8-460	SCREW: viewfinder housing to base $\frac{1}{4}$ inch #3 R.H. Wood.	3			++	++	+	
Fig. 58	8P8-470	SCREW: peep sight (swing type).	3			++	++	+	
Fig. 55 (A-948)	8P8-480	SCREW: shutter escapement.	2			++	++	+	
Fig. 55 (A-250)	8P8-485	SCREW: shutter release lever.	1			++	++	+	
Fig. 56 (A-276)	8P8-490	SCREW: tension dog, 2-56 R.H.-T.M.	1			++	++	+	
Fig. 56 (A-228)	8P8-495	SCREW: tension indicator.	1			++	++	+	
Fig. 55 (A-13)	8P8-500	SCREW: tension or shutter plate.	10			++	++	+	
Fig. 56 (A-304)	8P8-530	SCREW: yoke guide.	10			++	++	+	
Fig. 56 (A-313)	8P8-535	SCREW: yoke lock, 8-40 x $\frac{1}{16}$ inch.	1			++	++	+	
Fig. 56 (A-313)	6L6256-3.2	SCREW: bed block, 2-56 x $\frac{1}{16}$ inch brass, O.H.	6			++	++	+	
Fig. 68	6L6348-6.1	SCREW: handle catch, brass 3-48 x $\frac{3}{16}$ inch R.H.	2			++	++	+	
Fig. 11 (8)	6L6256-3.1	SCREW: viewfinder cap, brass 2-56 x $\frac{1}{16}$ inch R.H.	2			++	++	+	
Fig. 69	RA-3651	SHUTTER: Supermatic #2 PG/69939. (See list for Supermatic Shutter, paragraph 80.)	1						
Fig. 9 (4)	8P8-540A	SIGHT: peep, swing type.	1			++	++	+	
Fig. 56 (A-290)	8P8-555	SNAIL: tension plate.	1			++	++	+	
Fig. 55 (A-243)	8P8-575	SPRING: escapement.	1			++	++	+	

\*Indicates stock available.

\*\*Indicates that parts may be requisitioned as needed from depot stocks.

### 85. MAINTENANCE PARTS LIST FOR CAMERA PH-47-E (CONT'D).

Ref symbol	Signal Corps stock No.	Name of part and description	Quan per unit	Ran ning spares	Orgn stock	3d ech	4th ech	Depot stock
	8P8-505	SPRING: handle catch; leaf type.	1			**	**	*
	8P8-590	SPRING: screen bottom.	1			**	**	*
	8P8-590A	SPRING: screen, top.	1			**	**	*
Fig. 36 (A-274)	8P8-600	SPRING: tension dog.	1			**	**	*
Fig. 52 (A-318)	8P8-605	STANDARD: front.	1	*		**	**	*
Fig. 23	8P8-640	TACKS: aperture plate, round-head.				**	**	*
Fig. 6 (3)	8P8-635	TACKS: $\frac{1}{4}$ inch #21 bellows, flat-head.				**	**	*
Fig. 55 (A-254)	8P8-665	WASHER: escapement lever	1			**	**	*
Fig. 36	8P8-685	YOKE: complete.	1			**	**	*
Fig. 9 (17)	8A-1201	GLASS: ground; 4" x 3", for Ground Glass Focusing.	1	*		**	**	*

\*Indicates stock available.

\*\*Indicates that parts may be requisitioned as needed for depot stocks.